A new species of *Arhopala* Boisduval, 1832 from Luzon Island, the Philippines (Lepidoptera: Lycaenidae)

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Abstract: A remarkable specimen belonging to genus *Arhopala* Boisduval, 1832 was discovered on Luzon Island, the Philippines. After the comparison with allied species we recognized it as a new species and therefore describe it here as *Arhopala* ***hayashihisakazui*** **sp. n.** (holotype female in coll. Research Institute of Evolutionary Biology, Tokyo, Japan).

Eine neue Art der Gattung *Arhopala* Boisduval, 1832 von Luzon, Philippinen (Lepidoptera: Lycaenidae)

Zusammenfassung: Ein ungewöhnliches und auffälliges Weibchen einer Art der Gattung *Arhopala* Boisduval, 1832 wurde auf der Insel Luzon, Philippinen, entdeckt. Im Vergleich mit nahestehenden und ähnlichen Arten erkannten wir es als zu einer neuen Spezies gehörig, die hiermit als *Arhopala* ***hayashihisakazui*** **sp. n.** (weiblicher Holotyp in coll. Research Institute of Evolutionary Biology, Tokio, Japan) neu beschrieben wird.

Introduction

A new species of the genus *Arhopala* Boisduval, 1832 is described from N Luzon and compared to the nearest *Arhopala* species from the Philippines and SE Asia.

Arhopala hayashihisakazui sp. n.

Holotype ♀ (Figs. 1A–B): Philippines, NE Luzon, Isabela Prov., Sierra Madre Mts, viii. 2012, local collector leg. The holotype will be deposited in the Research Institute of Evolutionary Biology, Tokyo, Japan.

No paratypes.

Etymology: This new species is named after Mr. Hisakazu Hayashi, a renowned Japanese researcher for the Philippine Lycaenidae.

Description

Female. Large, forewing length 33.5 mm, wing expanse 60.0 mm, antenna 13.5 mm.

Eyes and palpi. Smooth.

Wing venation. Forewing with 11 veins.

Wing shape. Both wings rather elongate. Forewing termen straight and apex pointed. Hindwing with a tail, 7.5 mm long and white tipped. Tornal lobe not developed.

Wing pattern. Upperside. Ground colour shining pale greenish blue whitened around cell. Both wings black borders very broad, forewing 11.5 mm at apex, 7.5 mm at tornus, hindwing 9.0 mm in space 3. Forewing border irregularly widened in space 3. Forewing end cell bar clear and broad.

Underside. Ground colour grayish brown but spaces between 1a and 5 on forewing and space 6 on hindwing mostly whitened. Tornal bluish green scales in spaces 1a, 1b and 2 on hindwing present, but not prominent. Markings of both wings slightly darker than ground colour and outlined by pale brown striae. Forewing post discal band completely dislocated at vein 4 and spots in spaces 4, 5 and 6 in line and oblique. Hindwing lower end of end cell bar outwardly enlarged. Post discal spot in space 6 very small but this may be an individual variation.

Male and preimaginal instars unknown.

Diagnosis

This new species is quite distinct and easily separated from any *Arhopala* species so far recorded from the Philippines.

Outside the Philippines, the most likely confused species, especially on the underside, is *Arhopala anarte* (Hewitson, 1862). Though D'Abrera (1985) suggested that *A. trionoea* Semper, 1890 from the Philippines might be a subspecies of *A. anarte,* the former is actually far from the latter. *A. trionoea* is immediately separable from *A. anarte* by its coloration and marking pattern of both wings of both sides as shown in Figs. 2a and 2b.

Arhopala anarte is divided into 3 subspecies:

- ssp. *anarte:* Assam to Malay Peninsula (Figs. 3a/b),
- ssp. *tanimitsui* K. Saito & Seki, [2004]: Borneo (Figs. 4a/b),
- ssp. *auzea* de Nicéville, 1896: Java (Figs. 5a/b).

The points for distinguishing this new species from all 3 subspecies of *A. anarte* are as following.

1. Both wings more quadrate.
2. Upperside ground colour shining pale greenish blue instead of purplish blue in ssp. *anarte* and *tanimitsui,* shining pale blue without a greenish tinge in *auzea.*
3. Upperside black border much broader than in ssp. *auzea* which has the broadest border of these 3 subspecies of *anarte*.
4. Underside ground colour with a grayish tinge which does not exist in *anarte*.
5. Underside forewing post discal spot in space 9 in continuation of those in spaces 4, 5 and 6 whereas in *anarte* it is shifted inwardly out of line. No spot above central cell spot in spaces 10 and 11. Basal black area in space 1b obscure and not outlined by striae whereas in *anarte* it is prominent and outlined by brown striae.
6. Underside hindwing central spot in space 1b round whereas in *anarte* elongate.

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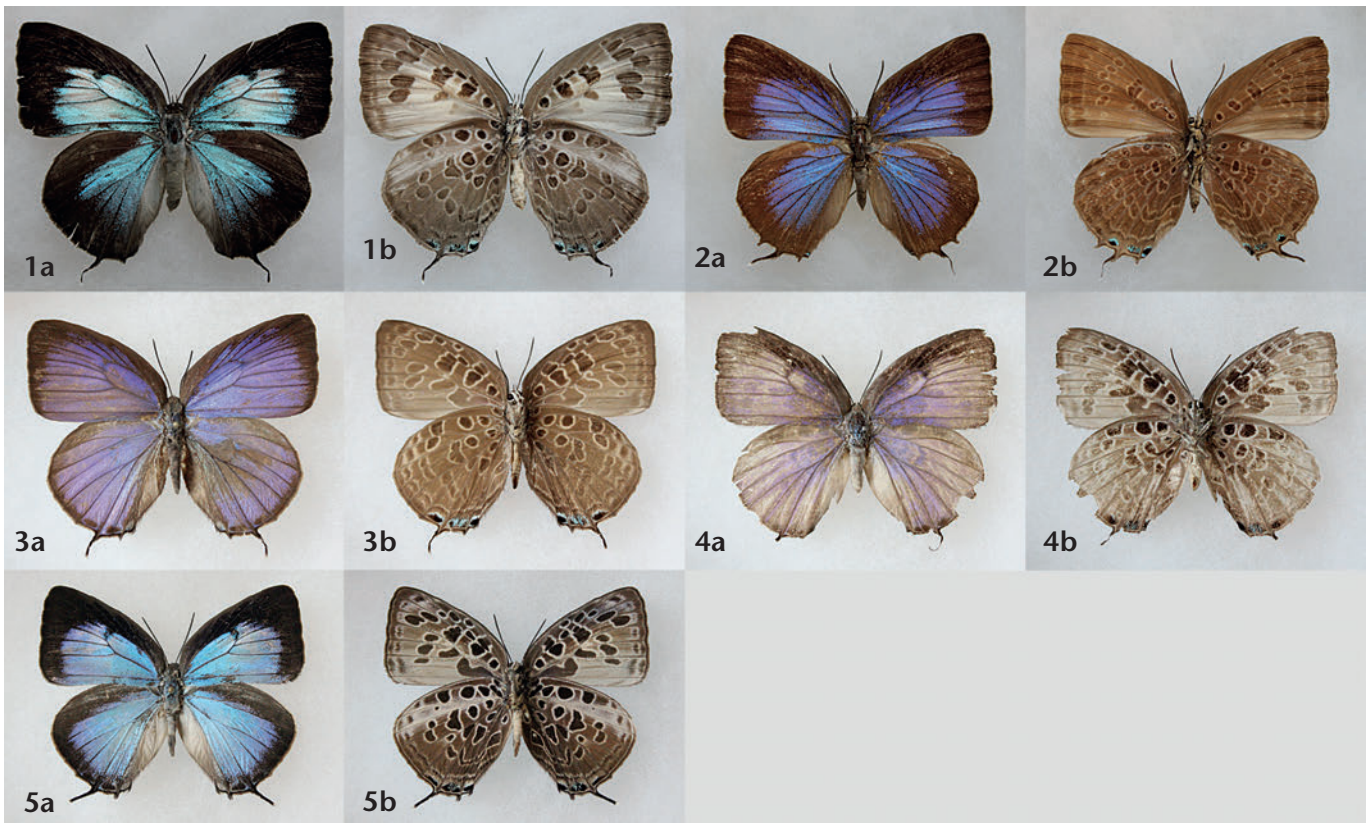

Figs. 1–5: Female specimens of the genus *Arhopala*. — a = upperside, b = underside. — **Fig. 1:** *Arhopala hayashihisakazui* sp. n., holotype ♀. — **Fig. 2:** *A. trionoea monticola* Seki, 2005, paratype, Luzon. — **Figs. 3–5:** subspecies of *A. anarte*. **Fig. 3:** *A. anarte anarte,* Malay Peninsula. **Fig. 4:** *A. anarte tanimitsui,* Sabah, Borneo. **Fig. 5:** *A. anarte auzea,* W Java. — Specimens approximately to the same size, slightly smaller than natural size, photos Y. Seki.

Acknowledgement

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